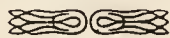


Annual Report
OF THE
MEDICAL OFFICER
OF HEALTH
TO THE
HARPENDEN
Urban District Council
FOR THE YEAR, 1913



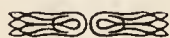
Census Figures in 1911 :

AREA IN ACRES, 1631.

POPULATION, 6173.

NUMBER OF INHABITED HOUSES, 1401.

AVERAGE NUMBER PER HOUSE, 4.4.



HARPENDEN :

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REPORT, 1913

GENTLEMEN,

I estimate the population of your district on June 30th last, at 6,443. This does not allow for any part of the Children's Home and Orphanage which did not become occupied until after that date.

The actual number of deaths registered was 49. I have been notified of eight more, properly belonging to your district, of residents dying elsewhere; and there has to be deducted one death at the Maple Almshouses. The correct number of deaths is 56, and the deathrate 8·6 per thousand. This figure is, as usual, very low.

There were 109 births registered—51 of males and 58 of females. Four more, properly belonging to Harpenden, have to be included, making a total of 113, and giving a birthrate of 17·5 per thousand. This is, also as usual, very low.

The mortality of infants, that is the proportion of deaths to a thousand births, was 44. The average for the last ten years for the Urban Districts of the County was 90.

Notification of Infectious Diseases.

The addition of Tuberculosis to the list of Compulsorily Notifiable Infectious Diseases after February 1st, 1913, was referred to in my last report. We had previously in Harpenden a voluntary system which did not answer well. There have been 14 notifications, 10 of Pulmonary, and 4 of other forms of Tuberculosis. One of the pulmonary cases has since died. The County Tuberculosis Officer, Dr. Hyslop Thompson, is always willing to meet the medical man in charge of insured cases, to assist in diagnosis and to advise as to treatment. Leaflets are distributed giving information as to prevention. Shelters are supplied when desired. Tubercular treatment for the district can be obtained at St. Albans under Dr. Thompson's direction. The amount of sanatorium accommodation is

at present very limited. The compulsory notification of Tuberculosis and the initiation of the Insurance Scheme are both too recent to justify much criticism.

The part to be taken by your Council and officers, is to prevent the spread of the disease from known cases, to remove such conditions as overcrowding and bad sanitation favourable to its growth and spread, to distribute information as to precautions to be taken, to provide means, such as the free examination of sputum for the early diagnosis of cases, and to disinfect where necessary. Seven free examinations of sputum have been made. Three Tuberculosis shelters have been disinfected in addition to other premises with bedding and clothing.

Two cases of Diphtheria were notified. One was imported and removed to Hospital. The other was nursed at home. Ten throat swabs of suspected cases were examined free. I am sure the Council do not grudge the expense involved in this. Only by such bacteriological examination can Diphtheria in mild cases be really recognised, and mild cases are the important factor in the spread of the disease.

The 20 cases of Scarlet Fever were all mild and were distributed fairly evenly over the year. 19 were removed to Hospital.

Hospital Accommodation.

The Sisters' Hospital for Scarlet Fever and Diphtheria at St. Albans provide ample accommodation for the district and there is no delay in the removal of patients. The steam disinfecter at the hospital is of great service. Bedding and clothing despatched are promptly dealt with and returned.

Fortunately the Joint Smallpox Hospital on the Cherry Trees Farm estate has not yet been occupied. It is in the hands of a caretaker who cultivates the plot of ground attached and sells the produce. May he long do so undisturbed. But we live in the days of the multiplication of the conscientious objector to vaccination, and an epidemic of smallpox in the future is bound to be a much more serious affair than in the past.

Water Supply.

A constant supply to nearly all houses in the District is provided by the Harpenden Water Company. A sample analysed by Professor Kenwood was reported upon satisfactorily

as to purity. But attention was again drawn to its excessive hardness. My reference to this in last year's report was followed up by a letter of inquiry from the Council to the Water Company. In their reply the Company intimate that they do not propose to take any steps to remedy the defect. I do not believe that the extent of the dissatisfaction of newcomers to the district with the excessive hardness of the water for drinking purposes, is sufficiently realized ; nor are its constipating effects apparent to those who are not in the habit of using it as a beverage. As a medical practitioner I can vouch for both the constipation and the dissatisfaction, and am quite disinterested in suggesting the remedy.

I may again draw the attention of householders to the advisability, where there are a number of cold water taps in the house, of their ascertaining which are directly connected with the water main. Some may be connected with a not overclean cistern in the roof and should not be used for drawing water for drinking or cooking.

A considerable increase in the amount supplied was to be expected with the advent of a sewerage scheme. The conversion of pail to water closets and the construction of sink drains in the smaller property are important factors in the increase. In addition there is probably a greater recklessness in the use of baths, the number of which was previously limited by the size of the cesspool, rather than the inclination of the individual. From January 1st to December 31st, 1912, 29,428,243 gallons were supplied while in the corresponding period in 1913 the figure was 36,608,727 gallons.

Drainage and Sewerage.

The first turf of the Sewage Disposal Works was turned on August 2nd, 1911, and from that date the work of sewerage the Harpenden Valley has carried on continuously.

The council notified the ratepayers that connections might be made with the public sewers in approved cases after May 20th, 1913. Special forms with spaces for plans of drainage and sanitary arrangements, are supplied to owners. On approval 468 premises have been joined on. This has meant 260 connections, as some of the smaller property was allowed to have combined drains to obviate the necessity of laying them under the houses.

The water test is applied to all new pipes before they are covered over. All old drains are examined and if necessary reconstructed before being approved by the Surveyor as fit for connection.

The Sanitary Committee in considering applications insist on the general rule that, where practical, each house shall have a separate drain to the sewer. In the case of small houses in terraces, a combined drain at each end of the terrace is permitted on certain conditions. The owner is required to enter into an agreement with the Council that he will at all times be responsible for and keep the combined drain in good order and condition. A memorandum of the existence of this agreement must be endorsed on the title deeds of the property.

The sewerage of the Lea Valley is completed, but the pumping machinery is not yet quite fixed up. The sewage will flow by gravitation into an underground tank at the bottom of the disposal site. From there it will be pumped into the screening chamber into which the town outfall sewer discharges.

Sewage Disposal.

The purification works consist of: Screening chamber, detritus chambers, slate contact beds, primary and secondary percolating filters, and tumbling bays. In addition to these there is a concrete underground tank, pump chamber, rising main and machinery, for raising the Lea Valley sewerage from the bottom to the top of the works.

The sewage is first discharged into a screening chamber, where paper, rags, and large solids are raked off the screen into a barrow, wheeled away and buried. It then flows through the detritus chamber, where grit and heavy matters are deposited, along a channel to the slate beds. These beds contain 18 or 19 horizontal layers of slate separated by a space of two inches. When a bed is filled to the required height, the inlet valve closes and the sewage remains quiescent for two hours, during which time solid matters are supposed to deposit upon the slates. The outlet valve then opens automatically and the liquor flows into a humus tank. The solids remaining in the slate beds are liquified and gasified by the aerobic organisms, and the period of rest for the aeration of the beds to enable the colonies of organisms to develop, multiply and do their work, should be as long as possible. At

Devizes 8 to 12 hours' aeration is allowed, and a longer time even would be given if the capacity of the beds permitted.

The object of the humus tank is, I understand, to arrest solid matters in suspension which have escaped the slate beds.

From this tank the liquid is further aerated by passing through primary and secondary clinker percolating filters over which it is distributed by revolving sprinklers. The effluent then passes over tumbling bays and into the River Lea.

Perhaps I may be permitted to mention two matters which appear to me capable of improvement. First: there is no doubt that septic action takes place in the sewage detritus chamber. The large bubbles of putrefactive gas that are visible are sufficient evidence of this. This septic action causes the deposition of large quantities of matter that should go on to the slates. It is also responsible for the formation of a thick disagreeable scum, and it makes the sewage more difficult to deal with by the aerobic organisms. The inventor of the system strongly emphasises the importance of the sewage being delivered on the slates in as fresh a condition as possible.

The other point that I should like to refer to, is the large quantity of sludge which has to be removed from the detritus chamber and the slate beds. For the former the remedy is the avoidance of septic action. For the latter the method of filling the slate beds is, I think, responsible. The beds are filled from the bottom with the result that the solids remain there and never get up to the higher and more aerated layers, but tend to choke up the bottom ones, or to be washed out when the beds are emptied. The idea of the slate beds, as used at Devizes, is that the sewage should be discharged on the *top*, and the solid stuff should be caught by each layer of slates in turn in the process of sedimentation and be dealt with by the aerobic organisms during the resting period. After the resting period the beds should be emptied slowly, and not with a rush, and so should allow very little solid to escape to form sludge. This is, I believe, a very important practical point, and one which has not escaped the notice of some members of the Council.

During the year 222 cesspools have been emptied of 222,450 gallons of sewage as compared with 230 cesspools and 273,300 gallons in the previous twelve months. In addition 23 cesspools have been bottomed. This work is now rapidly decreasing owing to sewer connections.

Scavenging.

Scavenging has been carried out by the same contractor on the whole fairly satisfactorily. A few complaints of irregularity in collecting were made. Over the greater part of the district, dustbins are emptied once a week, and closet pails twice weekly.

The dustbin refuse is dumped on the Council's disposal site in Grove Road. One complaint was made during the year of paper being burnt when the wind was in the direction of houses 300 or 400 yards away.

The contents of 260 closet pails were conveyed in iron tumbler carts to arable land belonging to the contractor and ploughed in the ground.

As will be seen in the summary of sanitary work, over 100 pail closets have been converted into water closets.

Housing of the Working Classes.

Over 200 of the smaller houses coming within the scope of the Housing and Town Planning Act have been inspected. Many are old and do not comply with the requirements of modern byelaws with respect to the height of storeys, air-space at the rear, etc. A few are damp at the base of external walls, the only remedy being the insertion of a damp proof course. Cases of dampness due to defective guttering and spouting have been remedied by order of the Sanitary Committee. In some cases damp walls have been plastered externally with cement.

The surroundings of this class of property are being improved by the abolition of privies and pail closets, and the substitution of water closets with the provision of proper sink gullies and surface drains. This will do away with the custom of throwing slop water on the surface of the ground just outside the back doors. The proper paving of yards, especially those common to several houses, needs attention, and, now that we have the necessary byelaws, can be enforced.

No houses have been found structurally so defective as to warrant condemnation. The four premises closed last year have been repaired, and sanitary conveniences provided in accordance with plans approved by the Council. The closing order with respect to two of them has been determined.

Summary of Sanitary Work.

Inspections.

Houses inspected in routine	...	...	250
" " on complaint	...	...	35
Common yards, courts, etc.	...	...	25
Schools. Visits to	...	...	8
Bakehouses	...	...	7
Slaughterhouses	...	...	4
Cowsheds	...	...	6
Offensive trades	...	...	1
Factories, workshops and workplaces	...	...	40
Damp and detective walls, defective gullies, etc., repaired	...	...	38
Privies abolished	...	...	6
" converted to water closets	...	...	6
Pail closets converted to water closets	...	...	101
Drains newly constructed	...	...	230
Houses connected to sewers	...	...	468
Drains tested by water	...	...	246
Cesspools emptied	...	...	222
Yards paved	...	...	16
" repaired	...	...	18
New dustbins provided	...	...	36
Offensive accumulated manure, etc., removed	...	...	25
Premises disinfected	...	...	3
Nuisance from animals improperly kept, abated	...	...	3
Premises cleansed and lime-washed...	...	...	42
Premises condemned	...	...	0
Premises where condemnation order determined	...	...	2
Premises repaired —roofs, walls, ceilings, floors	...	...	47

Premises under Supervision.

These include seven bakehouses, four slaughterhouses, and six cowsheds. All have been periodically inspected to ensure the carrying out of cleansing and whitewashing required by the byelaws. A new brick cowshed, built according to modern requirements, has been constructed during the year.

The tuberculosis order of the Board of Agriculture of 1913 came into force on May 1st. It includes the notification of tuberculosis in cattle and gives the County Council and their veterinary inspectors power to examine, report, and, if necessary, slaughter and compensate.

Factories and Workshops.

Forty-eight are now on the register, two having been added during the year. The trades are those of dressmakers, waterproof works, nurseries, wheelwright, tailors, builders, laundries, bakehouses, stonemason, milliners, straw hat works, blacksmiths, brewery, printers, rubber workers and bootmakers.

Inspections have been made especially in reference to cleansing and white-washing and proper sanitary arrangements. Paving of laundry floors, and an extra exit to a factory were required. The Home Office Inspector had no comments to make respecting the sanitary condition of the premises he visited.

Lists of outworkers were received from Westminster, Stepney and Luton.

One application was made for permission to carry on an offensive trade, that of fish-frying. A license on certain conditions was granted but the business has lately been discontinued.

There are no offensive trades in the district.

Adoptive Acts and Byelaws

The Infectious Diseases (Prevention) Act 1890 and the Public Health Acts (Amendment Act) 1890, Part III, are both in force in this district.

The majority of the Adoptive Parts of the Public Health Acts (Amendment Act) 1907 are now in force.

The Byelaws Revision Committee have had a good many meetings and have carefully considered clause by clause the models of all the byelaws which, under the provisions of various Acts of Parliament, may be enforced in urban districts.

It was found unnecessary at the present time to adopt some, and the requirements of others were modified to suit the circumstances of the district. New clauses have been added to the Old Building Byelaws relating to the thickness of walls, etc., with the object of reducing the cost of building cottage property.

The following byelaws have been adopted, confirmed by the Local Government Board, and are in force : New Streets and Buildings, Drainage of Existing Buildings, Prevention of Nuisances, Slaughter Houses, Means of Escape in Case of Fire, Houses Let in Lodgings, Common Lodging Houses, Tents, Vans, Sheds, etc., Offensive Trades, Regulations with respect to Dairies, Cowsheds and Milkshops.

I have to thank the Sanitary Inspector, Mr. J. H. Leverton, for his advice and assistance.

I am, Gentlemen,

Your obedient Servant,

HUGH FRASER, M.A., M.B., C.M.

March 31st, 1914.

